



National Institute on Alcohol Abuse and Alcoholism

Forecast for the Future Strategic Plan To Address Health Disparities

National Institute on Alcohol Abuse and Alcoholism

**STRATEGIC PLAN TO
ADDRESS HEALTH DISPARITIES**

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The Need for a Strategic Plan To Address Health Disparities

Data suggest that some minority groups suffer more adverse effects from alcohol consumption, abuse, and alcoholism than do other populations. Important to the mission of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) is research designed to identify racial and ethnic disparities in the causes and consequences of alcohol-related problems and to develop methods to ameliorate them. NIAAA's strategic plan for future alcohol-related research on health disparities is based on its substantial past work and ongoing initiatives in this crucial area.

NIAAA funds more than 90 percent of the research in the United States on the causes, consequences, treatment, and prevention of alcohol-related problems. Information produced by those efforts reveals that about one-third of Americans do not drink at all and the majority of those who do drink, do so without adverse consequences. But pressing questions still persist. Why do some people exhibit a pathological appetite for alcohol when this can result in violence, family discord, job loss, injuries, and a range of serious medical problems? Why are some individuals more vulnerable to alcohol's effects than others? Why are the problems unevenly distributed across racial and ethnic groups, with disproportionately greater problems observed in some subpopulations? And, are there effective methods for preventing and treating alcohol abuse and dependence as well as other alcohol-related consequences among these high-risk individuals and populations?

As a participant in the trans-National Institutes of Health (NIH) effort to reduce and eliminate the differences in the incidence, prevalence, morbidity, mortality, and burden of diseases and other adverse

health conditions that exist among specific population groups, NIAAA is committed to increasing and strengthening efforts to address health disparities related to a wide range of alcohol-related problems including alcohol abuse and dependence (alcoholism). Groups of particular concern at this time include African Americans, Alaska Natives and American Indians, Asian Americans and other Pacific Islanders (including Native Hawaiians), and Hispanics/Latinos. As NIAAA learns more about disparities, and birth rates and immigration patterns shift, these groupings are likely to change.*

Research Targeting Minority Populations

NIAAA supports research programs that span nearly all disciplines from molecular biology to the social and behavioral sciences. Since 1989, there has been approximately a fivefold increase in the NIAAA investment in research targeted to minority populations. A number of projects have resulted from NIAAA's partnership with the NIH Office of Research on Minority Health (ORMH), which began in 1995. In addition to co-funding initiatives aimed at reducing health disparities, ORMH has played an active role in supporting development of high-risk, high-impact projects designed to increase alcohol research in minority-serving institutions.

Important to the mission of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) is research designed to identify racial and ethnic disparities in the causes and consequences of alcohol-use disorders and to develop treatment and prevention methods to ameliorate them.

* Not only do minority populations represent myriad backgrounds and cultures, but newly emerging evidence from the Human Genome Project and studies of molecular genetics show that race is *not* a biologically distinct category (Owens, 1999). Despite the continuing controversy regarding the use of terms such as "Asian or Pacific Islander" to classify population groups, NIAAA has decided to employ them in this report because most of the scientific studies conducted to date use similar terms.

Development of the NIAAA Strategic Plan

The *NIAAA Strategic Plan To Address Health Disparities* was developed by a working group composed of representatives from each Division and Office within the Institute. Co-chaired by the Associate Director for Collaborative Research Activities and the Executive Officer, the working group identified three major areas for consideration in the report: research initiatives, research infrastructure, and information and outreach.

Research Initiatives. Because research is NIAAA's primary focus, the major portion of the Strategic Plan describes initiatives to close the gap between what is known and what is suspected about health disparities related to alcohol use, abuse, and dependence. The Research section of the Plan identifies goals and proposed action plans for such vital concerns as fetal alcohol syndrome (FAS), the toxic effects of alcohol, the impact of genetics, treatment, and prevention.

Research Infrastructure. The Institute recognizes that minority researchers play key roles in promoting interest in health disparities research and in compiling the information needed to understand the interplay among those cultural, social, and biologic factors that influence differing responses to alcohol consumption. For that reason, the Plan also emphasizes the importance of research infrastructure. From the NIAAA perspective, developing the research capacity of minority-serving institutions and enhancing the career development of minority investigators and clinicians are strategic priorities.

Information and Outreach. The third major section of the Plan considers the strategies important to improving information and outreach to minority populations. Increasing public awareness, engaging health care professionals, and expanding efforts in science education are among the key issues raised.

Drafts of the Strategic Plan have been reviewed by members of the National Advisory Council on Alcohol Abuse and Alcoholism and by representatives from national organizations and stakeholder groups in the alcohol research, prevention, and treatment communities. NIAAA views the Strategic Plan as a dynamic document that will be updated and revised as new findings become available, new opportunities are presented, and greater insights into health disparities are gained. Together, the goals and proposed action plans that follow comprise an overall strategy designed to achieve NIAAA's vision for the year 2025.

Vision

By the year 2025, there will be a greater understanding of the biological, cultural, environmental, and ethnic factors that contribute to differences in alcohol-related problems. Through this understanding, there will be more effective prevention and treatment methods. Ultimately, the health disparities related to the use and abuse of alcohol and to alcoholism will no longer exist.

Exhibit 1: Selected Issues Affecting Alcohol-Related Health Disparities

- Alcohol-related death rates were highest for African Americans, although a higher percentage of African Americans compared to whites abstain from alcohol.
- Although African American teenagers drink less than their white or Hispanic/Latino counterparts do, mortality from cirrhosis is substantially higher among middle-aged African American men. The death rate attributed to alcohol-related cirrhosis among African American males was 60 percent greater than that among white males in 1996.
- Alcohol-related mortality rates for white Hispanic/Latino men are double those for white, non-Hispanic/Latino men.
- In American Indian communities with high rates of alcoholism, an estimated 75 percent of all injuries—the leading cause of death among American Indians—are alcohol related.
- According to the Indian Health Service, the age-adjusted, alcohol-related death rate among American Indians in 1992 was 5.6 times higher than that for the general population, with the peak ages for death between 45 and 64.
- Among Asian Americans, rates of abstinence and alcohol abuse span the continuum, with Chinese American subgroups reporting high rates of abstinence, while Japanese American subgroups report higher rates of heavy drinking relative to those of whites.
- The reported prevalence of acute drinking for Native Hawaiians is 20 percent compared with 15 percent for the total State population. Acute drinking in this study was defined as consumption of at least five drinks on an occasion in a given month.
- FAS incidence appears to be higher in African Americans and American Indians than in the general population.
- Among minority patients who enter treatment programs for the general population, success rates are equal to those of whites in the same programs. However, there are disparities in access to treatment. Hispanics/Latinos and African Americans are less likely than whites to have health insurance that covers alcohol treatment.
- There is a serious need to increase the awareness of minority populations and professionals about the effects of alcohol abuse and to integrate this knowledge into the curricula and research agendas of all institutions, particularly those primarily serving minority communities.

STRATEGIC GOALS

The following goals and proposed action plans reflect the recommendations of NIAAA program administrators, extramural researchers, intramural researchers, and outside advisors. Goals and action plans build on existing programs and accomplishments to describe potential research efforts to address health disparities in specific population groups over the next 5 years. Proposed initiatives also capitalize on the Institute's successes to date in developing partnerships between minority clinicians and scientists and established alcohol researchers, and in enhancing efforts to attract and retain minority professionals in alcohol research careers. Improving capacity to reach out to the larger health care community, educating the public at large, and promoting science education are other essential features of the Institute's *Strategic Plan To Address Health Disparities*.

A. RESEARCH

NIAAA has identified eight areas of research where new and enhanced activities would improve understanding of and reduce the factors contributing to health disparity. They are epidemiology, genetics, toxic effects of alcohol, FAS, prevention, health services research, treatment/medications development, and human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS). Goals and proposed action plans for each area follow.

1. Epidemiology

Over the past decade, scientists have made considerable progress in measuring alcohol use, abuse, dependence, and associated problems among members of some minority populations in the United States. The higher rates of drinking and alcohol-related problems reported in many of those studies reinforce the importance of conducting alcohol-related epidemiological research among minority populations. From a public health perspective, it is critical to understand population-specific drinking patterns and associated problems, and to explain

discrepancies between reported levels of drinking at one point in time among minority group members and later development of health consequences.

Because minority populations are so heterogeneous, generalizations about their patterns of abuse can be misleading. With the exception of some studies on specific communities within larger ethnic groupings, the data on minority populations must be interpreted cautiously. Research shows that deaths related to alcohol abuse were highest for African Americans, although a higher percentage of African Americans compared to whites abstain from alcohol.

Although African American teenagers drink less than their white or Hispanic/Latino counterparts, mortality from cirrhosis, which usually developed after a 15- to 20-year drinking history, is substantially higher among middle-aged African American men. Due to changes in death-certificate documentation, it is now possible to examine national cirrhosis mortality by Hispanic/Latino ethnicity. Such analyses disclose that, while cirrhosis mortality for African American men is half again higher than that for whites, the mortality rates for white Hispanic/Latino men are double those for white non-Hispanic/Latino men. Research has also revealed that, between 1984 and 1995, rates of frequent heavy drinking among Hispanic/Latino men remained stable (17 and 18 percent). However, Hispanic/Latino men surveyed in 1995 were more likely to report three or more problems or consequences of drinking than those interviewed in 1984. This research suggests that income may be a protective factor, and the lack of resources associated with social disadvantage, unemployment, and minority status may contribute to the development of heavy drinking.

The prevalence of alcohol use and abuse among American Indians is highly variable among different American Indian communities. In communities with high rates of alcoholism, an estimated 75 percent of all injuries—the leading cause of death among

American Indians—are alcohol related. According to the Indian Health Service, the age-adjusted alcohol-related death rate among American Indians in 1992 was 5.6 times higher than that for the general population, with the peak ages for death between 45 and 64. Research also indicates that alcohol-dependent American Indians tend to be younger, male, and unmarried.

Because Asian Americans and Pacific Islanders encompass many ethnic groups with distinctive cultural norms, heritage, and language, it is not surprising that drinking behaviors vary widely among certain Asian American subgroups. Japanese Americans, for example, have significantly higher drinking and heavy drinking rates than Chinese Americans, a phenomenon frequently attributed to genetic and physiological factors as well as sociocultural values pertaining to alcohol use. In contrast, the reported prevalence of acute drinking for Native Hawaiians is 20 percent compared with 15 percent for the State population as a whole. Binge drinking in this study was defined as at least five drinks per occasion in a given month. According to the State of Hawaii's Department of Health, the percentage of adults in Hawaii reported to be chronic drinkers (at least 60 drinks in a given month) ranged from 5 to 6 percent compared with the national prevalence of 3 percent.

To date, large-scale national surveys have been primarily cross-sectional in nature. To address the issues in the research highlighted above, longitudinal studies are needed.

GOAL 1 – PATTERNS AND PREVALENCE OF ALCOHOL USE

Ascertain patterns of alcohol use and incidence and prevalence of alcohol-use disorders and associated disabilities in the U.S. general population and in racial/ethnic subgroups.

Action Plan 1: NIAAA proposes to conduct a nationally representative longitudinal survey of 50,000 individuals, with African Americans, Hispanics/Latinos, and youth oversampled, to derive more precise estimates of major alcohol-related variables. The National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) will include Alaska Natives and Native Hawaiians as well as other populations of interest, such as individuals living in group quarters. It would also collect DNA noninvasively during the second phase of the survey, technology permitting.

Action Plan 2: NIAAA will support research to explore and determine the factors that are relevant to understanding how alcohol-dependent men and women in specific minority communities give up drinking and maintain their abstinence.

Action Plan 3: NIAAA will expand studies to investigate the relationship between alcohol and domestic violence in minority families as compared to whites. Effects of socioeconomic status and acculturation will be of particular concern.

Action Plan 4: NIAAA will encourage rigorously designed qualitative and quantitative studies to gain insights about drinking patterns and consequences in specific minority populations.

2. Genetics

Recent data suggest that ethnic groups exhibit genetic diversity in their biologic sensitivity to alcohol. These potential differences in alcohol sensitivity may result, in part, from genetic differences in metabolic factors and from differences in the central nervous system's reactivity to alcohol. Measurements of the physiological and behavioral outcome of gene expression will yield more refined markers (i.e., specific physiological and behavioral traits) that indicate genetic ethnic differences in susceptibility to alcoholism.

Minority groups also may possess genetic traits that either increase or decrease their vulnerability to alcohol dependence (alcoholism). Variations have been observed between the structures and activity levels of the alcohol enzymes prevalent among Asian Americans, African Americans, and whites. The flushing reaction, found most frequently among people of Asian ancestry, is one example of a protective trait. Flushing has been linked to variants of genes for enzymes involved in alcohol metabolism. It involves a reddening of the face and neck due to increased blood flow to those areas and can be accompanied by headaches, nausea, and other symptoms. Although flushing appears to deter alcohol use, people with the trait may continue to consume alcohol. Further research is needed to explore these differences.

Evidence also suggests that genetic factors may predispose members of particular minority groups to a number of medical complications related to alcohol dependence (alcoholism), including damage to the liver, heart, pancreas, brain, and central nervous system. Studies are needed to determine whether sociocultural factors interact with genetic variations in metabolizing enzymes to produce ethnic differences in rates of organ damage. Likewise, additional research is needed to clarify whether specific genetic, physiologic, and behavioral factors may explain the high risk for alcoholism among certain minority groups.

GOAL 1 – GENETIC FACTORS

Determine whether there are specific genetic factors that contribute to high risk for alcohol dependence (alcoholism) in certain minority groups and, if so, identify their behavioral, neuroendocrine, and electrophysiologic expression.

Action Plan 1: NIAAA proposes to support analyses of genetic influences on alcohol misuse in minority populations. Such research will include assays on DNA samples to search for variants in the genes encoding neurotransmitters previously linked to specific behavioral disorders, including alcoholism, in other populations.

Action Plan 2: NIAAA proposes to promote increased assessment of behavioral, neuroendocrine, and electrophysiologic risk factors. Combining these assessments with genetic analyses would promote identification of neurobiological mechanisms and candidate genes for alcoholism in high-risk populations.

Action Plan 3: Using whole-genome linkage analysis and direct scanning, NIAAA proposes to expand on results from three previous Intramural Program studies of American Indians to elucidate the effect of alcohol on genetic-environmental interactions among American Indian populations.

GOAL 2 – ALCOHOL-METABOLIZING GENES

Determine how known racial differences in alcohol-metabolizing enzymes interact with sociocultural variables to influence alcohol consumption patterns in minority populations.

Action Plan: NIAAA proposes to stimulate research on studies of variations in alcohol-metabolizing genes among minority populations including studies on alcohol clearance rates. It also proposes to conduct studies of gender differences in response to alcohol in diverse racial populations and support studies to establish how sociocultural factors interact with genetic variations in alcohol-metabolizing enzymes to produce differences in drinking behaviors.

3. Toxic Effects of Alcohol on Organ Systems

Chronic, heavy alcohol consumption has toxic effects on all body organs including the liver, heart, pancreas, and brain.

Cirrhosis. Approximately 50 percent of all deaths due to liver cirrhosis, the 10th leading cause of death in the United States, are alcohol related. Studies have found that the death rate in alcohol-related cirrhosis among African American males was 73.8 percent greater than that among white males in 1992, although the gap narrowed during the 22-year period studied.

Cardiomyopathy. Chronic alcohol abuse can result in alcoholic cardiomyopathy, and there, too, disparities appear to exist. One study ascribed the differences in survival rate of African American (71.5 percent) and white (92 percent) cardiomyopathy patients to socioeconomic factors, but another shows that a serum protein variant (transthyretin Ile 122) more prevalent in African Americans is associated with cardiac disease. The role heavy alcohol consumption plays in cardiomyopathy among African Americans is not known. Similarly, the role alcohol plays in inducing hypertension in hypertension-prone African Americans merits further investigation.

Pancreatitis, a potentially fatal inflammation of the pancreas that is difficult to treat, is more prevalent in the African American population, both men and women, than in whites. This difference may be related to dietary factors, type and quantity of alcohol consumed, or other factors that need to be determined.

GOAL 1 – ALCOHOLIC LIVER DISEASE

Determine whether genetic or genetic-environmental interactions (e.g., dietary factors) may explain the increased vulnerability of some minorities to alcoholic liver disease (ALD).

Action Plan: NIAAA proposes to stimulate basic and clinical research related to ALD in minority communities and to use studies of the underlying mechanisms of the ALD gene array to identify genes responsible for susceptibility to ALD in African American men and women as compared to whites. The role of diet and patterns of alcohol consumption will be determined as part of this effort. Because the rates of ALD are so high in Hispanic/Latino men, NIAAA will also try to identify and analyze data from a subgroup of Hispanic/Latino participants in these studies.

GOAL 2 – ALCOHOLIC CARDIOMYOPATHY MECHANISMS AND INTERVENTIONS

Identify mechanisms of cardiomyopathy in minority groups with disparities in survival rates and develop interventions that address those mechanisms.

Action Plan: In response to the data on poorer survival among alcoholic African American patients with cardiomyopathy, NIAAA proposes to support research into the genetic mechanisms of pathogenesis, new therapeutic interventions, and methods to promote alcohol cessation in minority patients at risk. A potential genetic predisposition to the development of cardiomyopathy has been suggested by the finding of a higher frequency of the HLA-B8 antigen in alcoholic cardiomyopathy. In addition, candidate genes have been mapped and encode novel cardiac structural cytoskeletal proteins.

4. Fetal Alcohol Syndrome and Prenatal Alcohol Exposure

FAS is the leading cause of preventable birth defects in the United States. It produces lifelong neurological, behavioral, and cognitive deficits that prevent normal learning and socialization; organ abnormalities and other physical malformations; and growth deficiency. Some minority groups suffer far more FAS than others. For example, on the basis of data from the Centers for Disease Control and Prevention, FAS incidence appears to be six times higher among African Americans than whites, whereas some American Indian communities have a 33 times greater incidence of FAS than the general population. The incidence of alcohol-related neurodevelopmental disorders (ARND) in children exposed to alcohol during prenatal development is several times higher than this. ARND is the term used to describe the condition caused by maternal alcohol consumption that is characterized by central nervous system abnormalities and/or behavioral and cognitive abnormalities without many of the distinctive physical features of FAS.

Key research issues for minority groups are (1) identification of biological, behavioral, and cultural factors that underlie disparities in the incidence of FAS, which will lead to targeted diagnostic and treatment methodologies, and (2) development of targeted strategies to prevent maternal drinking. In FY 2000, NIAAA supported nine research projects to intervene with women at risk for bearing children with FAS. All but one of the studies are being conducted among populations in which the majority of the subjects are minority. Depending on the findings from these studies, the Institute will expand the populations studied, replicate the study among similar or different populations, and improve interventions on the basis of information gained across this group of projects.*

The NIAAA chairs and convenes the Interagency Coordinating Committee on Fetal Alcohol Syndrome. This committee includes representatives from 10 government agencies and institutes and has as its goal to foster collaborations and partnering to address the research issues and service needs of children with FAS and their families. Working groups composed of representatives of health, education, and juvenile justice agencies have proven to be effective in enhancing the integration of efforts across agencies.

GOAL 1 – RISK FACTORS FOR FAS

Identify biological, genetic, and environmental risk factors that lead to the disproportionately high incidence of FAS among African American, Alaska Native, and American Indian populations.

Action Plan: NIAAA proposes to support an expanded research program to identify genes responsible for differential susceptibility to FAS, evaluate alcohol-metabolizing enzyme variants among minority populations for their capacity to eliminate alcohol from the body, and identify environmental factors that predict alcohol-related adverse birth outcomes.

GOAL 2 – INCIDENCE OF FAS

Establish the incidence of FAS in minority communities within both targeted urban and rural areas of the United States.

Action Plan: NIAAA proposes to expand collaborative efforts to support the conduct of active case ascertainment to determine the true prevalence of FAS among African American, Hispanic/Latino, American Indian, and Alaska Native populations in the United States. A cadre of dysmorphologists, pediatricians, and neurobehavioral assessment clinicians would also be developed to teach and consult in minority-serving health professional schools and minority communities. In addition, appropriate methods would be devised for screening first-grade or preschool children in African American, Hispanic/Latino, Northern Plains States' American

* See sections on **Outreach to Health Care Professionals** (page 20) and **Science Education Initiative** (page 21) for additional goals pertaining to FAS.

Indian, and Alaska Native communities.

GOAL 3– NEW INTERVENTIONS TO PREVENT FAS/ARND

Develop interventions for the prevention of FAS and ARND among specific minority populations.

Action Plan 1: NIAAA proposes to ensure success of currently funded FAS prevention studies by convening a working group of investigators every 2 years, adding research investigators as projects are supported, and providing feedback to all participants.

Action Plan 2: NIAAA proposes to provide guidance to researchers in communities with high-risk populations in developing and evaluating culturally appropriate FAS interventions.

GOAL 4– NEUROBEHAVIORAL ASSESSMENTS OF FAS/ARND

Develop neurobehavioral assessment methods leading to techniques for improving awareness and understanding about FAS/ARND among specific minority populations.

Action Plan: NIAAA will expand studies of the specific neurobehavioral deficits of FAS/ARND and work collaboratively with educators to determine methods to enhance the educability of affected children.

GOAL 5– ALCOHOL-RELATED INFANT MORTALITY AND SUDDEN INFANT DEATH SYNDROME (SIDS)

Determine the extent to which high rates of alcohol consumption during pregnancy contribute to the high incidence of infant mortality and SIDS among some minority groups.

Action Plan: On the basis of data suggesting that maternal alcohol consumption may play a role in the higher incidence of infant mortality and SIDS among American Indians and Alaska Natives, NIAAA proposes to collaborate with the National Institute of Child Health and Human Development in assessing alcohol's involvement as a major risk factor.

communication/media strategies; and selected worksite and primary care interventions are the most promising science-based prevention approaches in use today. Although these efforts have been shown to be effective among some minority groups, it is unclear whether interventions designed for specific minority groups would be even more beneficial. In addition, problems unique to or apparently more prevalent among ethnic minority populations warrant further study. For example, more research is needed to understand why acculturation seems to increase drinking among successive generations in some populations. Likewise, some ethnic minority groups or subgroups are at high risk for developing FAS and other alcohol-related birth defects. Children with FAS often develop behavior problems that increase their risk of becoming involved with the criminal justice system.

GOAL 1– CONCEPTUAL APPROACH TO STUDYING MINORITY POPULATION ISSUES

Develop a strategic, coordinated methodological and conceptual approach to the study of ethnicity, race, and culture that is based on empirical observations and an adequate theoretical foundation capable of supporting an integrated body of data.

Action Plan: NIAAA has already planned and funded a working group meeting to formulate an approach and develop an agenda to address methodological and conceptual problems in the study of ethnic minority alcohol-related health disparities. Subsequent to that meeting, NIAAA proposes to convene focus groups of African Americans, Hispanics/Latinos, American Indians, Alaska Natives, and combined ethnicities to provide input to the working group in devising a research program to develop and test the approaches proposed.

GOAL 2– INTERVENTION EVALUATIONS

Identify and evaluate interventions for effectiveness in preventing or reducing alcohol abuse and related problems among racial/ethnic minority groups and determine factors affecting outcomes.

Action Plan 1: NIAAA proposes to review and synthesize existing data on the effectiveness of prevention interventions, including laws and policies that have been tested among racial and ethnic minority groups as strategies to reduce alcohol abuse and alcohol-related problems; to support secondary

5. Prevention

Research on the general population indicates that public policies; multicomponent community, school, and family-based programs; a variety of

analyses of identified data sets containing minority-focused outcomes that have yet to be analyzed in terms of minority groups; and to present the results in a final report.

Action Plan 2: NIAAA proposes to develop a set of research initiatives that address gaps in the current state of knowledge on alcohol-focused prevention strategies effective for specified minority populations. Plans include funding four new preventive intervention studies and stimulating applications for supplements to existing studies to enlarge the proportion of minority subjects.

Action Plan 3: NIAAA proposes to support behavioral studies on cultural relevance and its implications for the effectiveness of alcohol-focused preventive interventions among minority groups. These studies would determine those aspects of minority drinking environments, patterns, and problems that influence the outcomes of preventive intervention efforts. An intervention trial or separate study would address unique cultural factors that may have an impact on the success of preventive interventions.

GOAL 3- IMPROVING PREVENTION MESSAGES THROUGH EFFECTIVE COMMUNICATIONS STRATEGIES
Develop a research program to assess the effectiveness of various types of prevention messages and information strategies (e.g., health promotion, counteradvertising, media advocacy) as they relate to alcohol advertising and promotion in minority communities. Research is needed to identify more effective mechanisms for communicating information about alcohol-related risks to vulnerable minority communities and individuals.

Action Plan 1: NIAAA proposes to stimulate research on the cognitive and affective aspects of marketing alcoholic beverages—for example, malt liquor—to ethnic minority communities. Specifically, studies would focus on the influence of race/ethnicity and brand appeal on response.

Action Plan 2: NIAAA proposes to study the effectiveness of nontraditional approaches and emerging technologies that can provide prevention messages for underserved minority populations, including younger children and persons in isolated communities. Federal, State, and local law enforce-

ment, transportation, and substance abuse prevention agencies, as well as beverage industry and hospitality associations have posted a number of easily accessed prevention technologies on the Web. Among them are English- and Spanish-language versions of the Blood Alcohol Estimator, a formula for estimating an individual's blood alcohol concentration based on amount and type of alcohol consumed, weight, and number of hours spent drinking. The effects of these and other similar programs available through the Internet are not yet known.

Action Plan 3: NIAAA proposes to expand existing community-based research by implementing and testing the effectiveness of strategies for informing minority communities about the impact of outlet density on alcohol-related problems. In addition, new studies might be implemented in identified "hot spot" minority communities and neighborhoods to test the generalizability of these prevention strategies.

Action Plan 4: NIAAA proposes to stimulate development, testing, and assessment of health promotion messages on drinking and driving that would be effective with minority populations.

GOAL 4- PREVENTION AND TREATMENT INTERVENTIONS AMONG YOUTH
Test the efficacy and effectiveness of prevention interventions among young adolescents in urban neighborhoods and school districts.

Action Plan 1: NIAAA proposes to adapt and replicate Project Northland, an effective multicomponent intervention for young adolescents, in ethnically and racially diverse populations. The Project Northland intervention includes school-delivered alcohol prevention curricula, parental involvement, school policy change, and community organization. It was originally tested and found to be effective in small, predominantly white communities in northeastern Minnesota. NIAAA is planning to test this successful approach for delaying alcohol initiation among young adolescents in three urban neighborhoods and school districts that include substantial numbers of racial/ethnic minorities.

Action Plan 2: NIAAA proposes to support studies on existing family-based interventions in minority populations and to develop culturally sensitive family interventions for specific racial and ethnic groups. Family factors are known to be important influences in

the onset and course of adolescent drinking across ethnic and racial groups. Research on family-based interventions (e.g., providing training to parents) and interventions with significant family components (e.g., parent involvement in school-based programs) has shown encouraging results in the general population. Proposed studies would focus on strategies for identifying and reinforcing existing protective family practices, as well as teaching new parenting skills and family management techniques.

GOAL 5– DRIVING UNDER THE INFLUENCE

Develop and test methods to decrease driving under the influence (DUI) and its consequences in high-risk minority communities.

Action Plan 1: Assess the effectiveness of DUI courts in minority communities. The drug court movement has spread nationwide, but the implementation and assessment of DUI courts are still in their infancy.

Action Plan 2: Building on a FY 1999 initiative (co-funded by the National Highway Traffic Safety Administration), NIAAA proposes to assess the effectiveness of various culturally sensitive screening and intervention programs among DUI offenders in minority communities where rates of drunk driving are extremely high.

6. Health Services Research

Majority and minority population differences with respect to access to effective treatment may contribute to health disparities. In addition, the absence of insurance coverage for alcoholism treatment may be an important barrier to treatment access, while the lack of culturally appropriate aftercare may similarly impede the effective delivery of treatment to nonmajority patients. Although access to treatment for some minority populations has not been assessed widely, some factors have been studied. Available data indicate that Hispanics/Latinos and African Americans are less likely than the general population to have health insurance that would support access to treatment.

While some culturally sensitive treatment programs have been developed for Hispanics/Latinos, they are often aimed at specific subcultures within the larger Hispanic/Latino population

and have not undergone evaluation. There is no currently available evidence to suggest that minority populations respond differently to treatment; success rates among minority patients in programs aimed at the general population are equal to those of whites in the same programs. However, culturally specific additions to or modifications of existing services may increase positive outcomes and, as such, merit careful evaluation.

GOAL 1– ACCESS ISSUES

Increase research on access to alcoholism treatment services for minority populations.

Action Plan 1: NIAAA proposes to determine the extent of limited access and develop strategies to improve access to alcoholism treatment services for minority populations. Secondary analyses of existing data sets can identify which racial/ethnic minority groups have the greatest disparity in access to services, thereby identifying the appropriate target groups for other Institute health disparity initiatives. Existing data sets afford an unusual opportunity to compute reliable estimates of this fraction, even for relatively small ethnic groups. To supplement these analyses, NIAAA would hold a working group meeting to summarize the latest scientific findings on the causes of disparities in access and stimulate research on strategies to reduce them (e.g., improved delivery systems for treatment services in remote and rural areas, increased numbers of minority treatment counselors to lower psychological barriers to access, expanded funding for and availability of treatment programs in minority communities).

Action Plan 2: NIAAA proposes to evaluate access to alcohol services by minority women and children with special attention to issues unique to minority women and children and to programs that focus on improving their access, utilization, and retention in treatment. For example, anecdotal information suggests that lack of available child care is a primary barrier to alcohol treatment for African American women. NIAAA is currently supporting a small study investigating the impact of providing child care services during alcohol treatment on treatment retention and relapse prevention among minority women. NIAAA would encourage additional research based on these findings and findings from other relevant studies on improving access to services for minority women and children.

GOAL 2 – INSURANCE COVERAGE

Determine the extent of disparities in insurance coverage for alcoholism screening and treatment.

Action Plan: NIAAA proposes to research the variations in insurance coverage for alcoholism treatment among racial/ethnic groups. A literature review would identify what is known about the impact of insurance on treatment access and subsequent receipt of care. It would also stimulate further research on the extent of, causes of, and trends in disparity in coverage between minority and majority groups; disparities among racial/ethnic groups in the proportion of individuals covered by public and private insurance systems, the extent of coverage between private and public systems, the proportion who are uninsured for alcoholism treatment, and costs of treatment; and the impact of managed care on services covered by public sector insurance programs in which minority clients are highly represented.

7. Treatment/Medications Development

Because the categories that represent ethnicity are necessarily broad, they include people of diverse culture, heritage, language, origin, phenotype, and social and geographic context in a single group. An important, but untested, assumption has been that treatments tailored to the health needs and perceived health needs of minority populations will be more effective than generic treatments. Project MATCH, a large NIAAA-sponsored clinical trial, found no differences in treatment outcomes among minority participants as compared to whites. However, other research studies are generally inadequate to determine whether subjects in particular ethnic groups are more likely to have better or poorer outcomes than subjects drawn from the majority population. Studies of the social and cultural factors that may influence motivation for treatment, adherence to treatment, and improved treatment outcomes among minority populations are essential to advance understanding in this area. Research is needed to validate and extend knowledge about alcoholism treatment gained in studies with nonminority samples to minority populations.

GOAL 1 – SOCIAL AND CULTURAL FACTORS INFLUENCING TREATMENT

Identify social and cultural factors that may influence motivation for treatment, adherence to treatment, and treatment outcomes.

Action Plan 1: Assess Predictive Validity of Race and Ethnicity: NIAAA proposes to extract available minority data from NIAAA-funded clinical trials to estimate differences in treatment adherence and outcomes as they relate to the standard categories of ethnicity required in NIH clinical trials. These data would be pooled and analyzed to determine whether traditional ethnic categories predict variations in adherence or outcomes for particular groups or treatments.

Action Plan 2: Identify Social and Cultural Variables To Test as Predictors: NIAAA proposes to support grants to identify those social and cultural factors that influence conceptualization of alcohol problems; beliefs and values that shape efficacy expectancies regarding the effects of alcohol, control over alcohol abuse, and the effects of treatment; and culturally influenced perceptions of social support (including types of individuals expected to provide it) as well as community activities, resources, services, and other supports that may influence treatment adherence and outcomes either positively or negatively. This initiative would be implemented in two stages. In stage one, workshops would be held with alcohol experts/clinicians with extensive knowledge of particular ethnic groups and minority professionals with more specific knowledge of social and cultural factors that may influence treatment conceptualization, motivation, adherence, and outcomes. Focus groups would also be held with minority group members on waiting lists for alcohol treatment, those who have just completed alcohol treatment, and those who completed alcohol treatment 6 months ago, to identify social and cultural factors that may influence engagement and retention in the treatment process. The information gained in stage I would be used in stage II to guide the development of treatment outcome studies of standard treatment populations that assess the predictive validity of variables representing differences in minority groups, variables hypothesized to affect the conceptualization and nature of alcohol problems, motivation for help-seeking, and response to treatment interventions.

GOAL 2 – EFFICACY OF ESTABLISHED TREATMENTS
Assess the relative efficacy of established effective treatments for alcohol abuse and dependence (alcoholism) in different racial and ethnic groups.

Action Plan: NIAAA proposes to fund grants to replicate established treatments for alcoholism, including Brief Intervention, Cognitive Behavioral Therapy, Motivational Enhancement Therapy, Twelve-Step Facilitation Therapy, or treatments that combine one of these four therapies with naltrexone pharmacotherapy, in programs targeting predominantly minority population patients.

GOAL 3 – IMPROVING RETENTION AMONG AFRICAN AMERICANS
Develop and test interventions to enhance retention of African Americans in alcoholism treatment.

Action Plan: NIAAA proposes to support a three-stage, 5-year program to (1) involve African American researchers, physicians, and counselors, as well as others experienced in working with this population, in critiquing available data, identifying areas of need, and targeting research and other practice issues; (2) collect a minimal, common core of data for comparison across studies; and (3) present results and plan appropriate dissemination. Ethnicity-specific factors related to retention in alcoholism treatment for African Americans have not been thoroughly and systematically studied. Increased efforts are needed to identify factors that enhance retention of African Americans in treatment and reduce practical barriers contributing to dropout and/or irregular attendance. Also needed are opportunities to implement and test interventions incorporating those factors.

8. HIV/AIDS

NIAAA supports investigations of community-specific minority issues related to the interaction between alcohol consumption and HIV/AIDS, specifically, HIV/AIDS prevention and AIDS-induced organ damage. Adults and children of all underrepresented ethnic populations are emphasized in this work. Prevention studies focus on risky sexual behaviors in the context of alcohol consumption and on developing interventions that extend from the individual to the community level. Factors considered in these interventions include

minority empowerment and impact of HIV exposure on the minority community. Biomedical investigations emphasize the association between alcohol dependence and enhanced progression of AIDS-defining opportunistic infections. Under way are efforts to encourage collaborations between minority investigators and established alcohol investigators who are conducting HIV/AIDS-related research.

GOAL 1 – ALCOHOL USE AND HIV/AIDS
Elucidate the role of alcohol use and abuse in prevention and treatment of HIV/AIDS among minority populations.

Action Plan 1: NIAAA will study the social context and ethnographic factors of drinking and HIV risk behaviors in minority communities and use this information to inform prevention and intervention efforts.

Action Plan 2: NIAAA proposes to support supplements to existing studies of AIDS vaccines and antiretrovirals to further enhance representation of alcohol-using minority subjects in clinical trials. Inclusion of racial and ethnic minorities who abuse alcohol is important to understanding the impact of alcohol on the prevention and treatment of HIV/AIDS among those populations. It is also crucial that participation by minority drinkers reflects local prevalence data and is adequate to achieve sufficient statistical power for data analysis and generalization of trends, effects, and health outcomes.

GOAL 2 – CULTURALLY RELEVANT INTERVENTIONS
Develop culturally relevant interventions for primary and secondary prevention of HIV/AIDS infection among alcohol abusers in ethnic minority communities.

Action Plan: NIAAA proposes to support the design and assessment of preventive interventions for specific minority groups with increasing risk of HIV/AIDS infection, including minority women who abuse alcohol or have partners who abuse alcohol. Central to this initiative would be the identification of factors that promote early access to care, integration of alcohol and HIV/AIDS treatment, and maintenance of alcohol and HIV/AIDS interventions after relapse.

GOAL 3 – TREATMENT ADHERENCE

Identify alcohol's impact on behavior, access to health services, and adherence to HIV treatment regimens among HIV-infected minority drinkers.

Action Plan 1: NIAAA proposes to support studies related to alcohol consumption and abuse and compliance with HIV/AIDS treatment.

Action Plan 2: NIAAA proposes to expand research on alcohol-related health services for minority populations through the HIV Network for Prevention Trials (HIVNET), an effort sponsored by National Institute of Allergy and Infectious Diseases that oversamples urban and rural minority populations. Expanding participation in multisite and multi-institute clinical trials would yield information about health services for HIV-infected, alcohol-abusing members of minority groups.

B. RESEARCH INFRASTRUCTURE

NIAAA has identified three areas where new and enhanced activities could strengthen its research infrastructure and better equip it to address minority health disparities. The areas are increased support of capacity development in minority-serving institutions, expansion of efforts to attract minority investigators to alcohol research, and enhanced career development opportunities for minority investigators. Goals and proposed action plans for each area follow.

Capacity Development in Minority-Serving Institutions

With co-funding from ORMH, significant progress has been made in increasing the capacity of minority-serving institutions to conduct alcohol research. Building on the willingness of the established extramural research community to collaborate with new talent, the program encourages partnerships between experienced alcohol researchers and clinicians and faculty in minority-serving institutions. This process brings researchers with less experience in research, but more experience in working with minority populations, into the alcohol research field and provides a fresh, new perspective on important research questions. Currently, NIAAA is successfully expanding research capacity at minority-serving institutions through (1) co-funded cooperative agreements with ORMH for “Collaborative Minority Institution Alcohol Research Development Programs,” (2) Developmental Grants for Minority Collaborative Projects (R21), (3) special efforts in Alaska and Hawaii, (4) training of health care professionals, (5) technical assistance workshops, and (6) funding for the Underrepresented Minority Supplement Program. NIAAA is also supplementing alcohol research centers grants and research projects grants to facilitate research training and collaborative project development with minority-serving institutions. Exhibit 2 provides additional details on these efforts.

Exhibit 2: Current Capacity-Building Efforts with Minority-Serving Institutions

- **Cooperative Agreements.** In 1997, NIAAA and ORMH co-funded three cooperative agreements (U24) for Collaborative Minority Institution Alcohol Research Development Programs. Each grant consists of an administrative core and several pilot studies developed jointly with established research scientists. Charles Drew Medical School in Los Angeles, a Hispanic/Latino-serving institution, has developed an Alcohol Research Program that focuses on prevention and intervention research. North Carolina Central University's program is developing projects on the drinking patterns of college-age African Americans. A study to determine appropriate measures for evaluating these programs is in progress. The Alcohol Research Program based in the Pharmacology Department of the Howard University School of Medicine was developed to investigate ethnic factors in alcohol abuse among African Americans and has already received a substantial research grant (RO1) related to further studies on the genetic and physiological factors related to alcoholism. In addition, these programs have submitted several applications for developmental projects and have produced a number of graduate students.
- **Developmental Research Project Grants.** NIAAA has posted a program announcement titled Developmental Grants for Minority Collaborative Projects (R21) on the NIAAA home page (<http://grants.nih.gov/grants/guide/pa-files/PA-00-085.html>) to support pilot projects developed collaboratively between scientists in minority institutions and established alcohol researchers. Its purpose is to support the transition from partnership development to implementation of research projects.
- **Special Efforts in Alaska and Hawaii.** With co-funding from NIH/ORMH, NIAAA has increased its support for studies on the health disparities among Alaska Natives with a special research project grant to the University of Alaska on pathways to Alaska Native sobriety. NIAAA has also supported the State of Hawaii in conducting a symposium on alcohol research as well as cosponsoring a workshop and symposium with the HMO Research Network. A collaborative project to develop alcohol epidemiology research with the University of Hawaii is under way.
- **Training of Health Care Professionals.** Efforts are under way to facilitate the application of research results to practice through the development of curricula for pediatricians and prenatal care professionals on the identification of children affected by prenatal exposure to alcohol and on screening women of childbearing age for at-risk drinking. Training programs have begun at the University of Hawaii and Howard University and for physicians serving high-risk communities. A companion booklet in English and Spanish has also been developed to assist women in cooperating with their health care providers to reduce at-risk drinking.
- **Technical Assistance Workshops.** NIAAA has been conducting a series of workshops to attract faculty in minority-serving institutions to alcohol research. A recent effort, convened as a satellite to the annual meeting of the Research Society on Alcoholism, offered guidance in project development and grantsmanship. Other technical assistance initiatives include programs in distance and face-to-face mentoring in prevention research, discussions on the conduct of clinical alcohol research, and sessions to stimulate collaborative projects.
- **Minority Supplements.** NIAAA continues to increase funding for the Underrepresented Minority Supplement Program.
- **Mechanisms to encourage established alcohol scientists to initiate collaborations with minority-serving institutions.** These involve supplements to research project and center grants and contracts for feasibility studies.

GOAL 1 – ENHANCING RESEARCH CAPABILITY IN MINORITY-SERVING INSTITUTIONS

To assist and encourage minority-serving institutions in developing capability to conduct alcohol-related research that is relevant to needs of specific communities and populations.

Action Plan 1: Technical Assistance: NIAAA proposes to continue programs under way at minority-serving institutions and develop new collaborative research projects in institutions serving large numbers of American Indians and Hispanics/Latinos. Because formal working agreements, clear communication, and institutional commitment are essential elements of collaborative research, NIAAA would provide technical assistance in communications structures, planning, leadership, fiscal and administrative aspects of grant-supported research activities, scheduling, and the development of appropriate research applications.

Action Plan 2: Academic/Community Partnerships: As one way to enlarge the pool of minority scientists, NIAAA proposes to assist institutions of higher education—including community colleges and graduate- and doctoral-degree-granting universities with well-established research programs and centers—in partnering with the community-based educational system to “feed the pipeline.” In this approach, partnership efforts target high schools that feed into undergraduate colleges and universities, which feed into graduate schools with active research programs and provide candidates for research-career training. NIAAA would model partnerships on existing, effective pipeline programs.

GOAL 2 – COLLABORATIVE RESEARCH DEVELOPMENT PROGRAMS

Increase the prevention and treatment components of existing NIAAA-ORMH collaborative minority institution alcohol research programs and develop research capacity for addressing alcohol treatment issues in specific minority communities.

Action Plan: Building on NIAAA-ORMH's successful pilot collaborations to foster alcohol-related research at minority health professional schools and form successful partnerships between senior alcohol researchers and teaching institutions, NIAAA proposes to establish formal Collaborative Alcohol Research Development Programs. Specifically, NIAAA would partner faculty dedicated to building alcohol research programs in minority health professional schools with NIAAA alcohol research centers and established research grant programs. The goal would be to build research programs focusing on alcohol epidemiology, organ damage, genetics, prevention, and treatment research. The centers would serve as resources for health care professionals serving minority communities; develop programs to provide research-based information for the minority communities; and promote long-range collaborative activities as a cost-effective mechanism for strengthening the research infrastructure and capability of minority-serving schools.

GOAL 3 – ALCOHOL RESEARCH BY MINORITY INVESTIGATORS

Increase the amount of alcohol research conducted by minority investigators.

Action Plan 1: Supplements to Principal Investigators: NIAAA proposes to fund minority supplements to existing parent grants to assist new minority scientists, researchers, and clinicians in minority-serving and non-minority-serving institutions to develop small projects under the mentorship of existing NIAAA principal investigators. Such projects would have the potential for expansion into larger studies.

Action Plan 2: Small Grants: NIAAA proposes to increase the number of small grants to minority investigators that focus on studies of minority populations.

NIAAA has provided leadership in the development and testing of a model for research and clinical team building to support comparative studies nationally and internationally. This method of team building was developed to address and promote research on FAS, but it can be used in other research on health disparities. The model was developed in conjunction with a project to determine why people of African heritage are more susceptible to the effects of prenatal alcohol exposure than other ethnic groups. Although the incidence of FAS is greater than that of Down's syndrome, the project had to be conducted in South Africa because of the large numbers of same-age affected individuals needed to produce enough data for statistically valid analysis (in South Africa, the research team has documented the highest rate of FAS in the world). Studies to determine biological and social risk factors are in progress.

A multidisciplinary team that includes American Indian, African American, and Asian American dysmorphologists, social scientists, alcohol treatment and prevention experts, geneticists, neuro-behavioral assessment experts, and metabolism experts is leading the effort. Majority and minority schools represented include Charles Drew Medical University; the schools of medicine at Indiana University, Wayne State University, Howard University, the University of Wisconsin, Stanford University, the University of California at San Diego, the State University of New York at Buffalo, and the University of New Mexico. The team has calibrated its techniques, and efforts are in process to apply them to comparative studies in the United States. This collaborative project has been in progress for 3 years; papers are being written collaboratively and presentations will be made jointly.

Research Career Development

Recruiting and training minority investigators require intensive staff work and genuine commitment. Much of what has been tried in the context of bringing minority scientists and communities into the health sciences has not been successful. Human factors that cannot be quantified in terms of dollars may be key ingredients in enhancing recruitment efforts.

GOAL 1 – INCREASING THE NUMBER OF MINORITY ALCOHOL RESEARCH SCIENTISTS

Expand the number of underrepresented minority scientists engaged in alcohol-related research through career development, research training, predoctoral training, and academic preparation at the prebaccalaureate level.

Action Plan 1: Minority Scholar-in-Residence Program: NIAAA proposes to develop a minority scholar-in-residence program that would enable faculty members from doctoral-degree-granting research institutions to spend 1 or 2 years as guest faculty members in productive alcohol research programs in research-intensive institutions. Minority scholars would be required to form partnerships with established investigators and to participate actively in research projects, didactic courses, seminars,

symposia, workshops, and other scientific enrichment activities. In addition, they would spend time with research administration officials to develop an understanding of the research enterprise. To ensure that institutions would follow through on commitments to develop alcohol research faculty, institutions would be required to partially support minority scholars.

Action Plan 2: Postdoctoral Teaching Fellowship Program:

NIAAA proposes to enhance postdoctoral-level research training and experience for teaching faculty in minority-serving, non-research-intensive academic institutions by supporting “fellows” who already teach in institutions enrolling large numbers of minority students. Through formalized agreements with participating institutions, selected faculty would participate in already established training programs, enhanced to meet fellows’ academic and experiential needs. In addition to receiving didactic course work and acquiring the knowledge and skills necessary to prepare and motivate students for careers in science, fellows would participate in all scientific enrichment activities available to other predoctoral and postdoctoral trainees. The objectives of the proposed program would be to recruit minority teachers for alcohol research, enable them to become better teachers, and establish rapport among scientists, educators, and administrators of research and non-research institutions.

Action Plan 3: Administrative Supplements To Attract Minority Students into Research:

NIAAA proposes to expand an experimental approach to the recruitment, nurturing, and support of promising students by productive alcohol researchers. NIAAA recognizes the need to attract minority students early and encourage them to prepare for and enter careers in science through support and encouragement. Its pilot program supports an undergraduate student through an administrative supplement for underrepresented minorities. The student is employed at an hourly rate at an NIAAA-supported alcohol research center, an arrangement that allows for participation in center activities when the student is not attending classes. The benefits to the student are numerous: (1) talented and motivated students frequently come from families who cannot afford the expense of a college education unless the students are employed; (2) well-prepared minority students have a higher probability of being accepted in science-oriented graduate programs; and (3) students oriented and immersed in the research culture early are more likely to pursue careers in science and contribute to the applicant pool for NIAAA pre- and postdoctoral training grants.

GOAL 2 – INTRAMURAL RESEARCH MENTORING PROGRAM

Expose minority high school and college students and their teachers to the NIAAA Intramural Program's cutting-edge basic-science research, with the hope that this experience will lead them to choose careers in alcohol-related biomedical research.

Action Plan: NIAAA proposes to develop a mentoring program within its Intramural Program for college students and teachers from minority schools. This initiative would be modeled on the NIH-supported Research Mentorship High School Student Enrichment Program. The NIAAA Intramural Program would host four college students and one college teacher from minority institutions every summer to learn the basics of biological research under the mentorship of the laboratory director or another senior scientist. Students and teachers would present their work at a laboratory meeting and receive feedback from NIAAA's intramural scientists. The more successful students would be encouraged to return the following summer and become more actively involved in specific research projects. NIAAA would develop a database to follow participants' career development paths.

GOAL 3 – ALCOHOL-RELATED RESEARCHERS Increase the number of alcohol-related investigators from ethnic minority groups.

Action Plan 1: Training/Technical Assistance Workshops: NIAAA proposes to convene 2-day training/technical assistance workshops on grant preparation for minority applicants, some of whom may have submitted applications that failed to receive fundable scores. NIAAA would like to conduct one workshop per year over a 3-year period, each of which would focus on a particular research theme or discipline. Approximately 25 to 30 minority applicants would participate in the proposed workshops.

Action Plan 2: Administrative Supplements for Technical Assistance: NIAAA proposes to use administrative supplements to support technical assistance in concept development and grant preparation for approximately 20 minority investigators. Assistance would be provided by NIAAA-funded extramural experts in alcohol research via face-to-face assistance and/or "distance learning" channels such as the Internet/Intranet, e-mail, telephone, fax, surface mail, and print materials.

Action Plan 3: Sponsored Attendance at Professional Meetings: NIAAA proposes to support the attendance of six funded and unfunded minority investigators per year at annual meetings of the Research Society on Alcoholism and other organizations that include special modules on theoretical and methodological issues in alcohol research.

C. PUBLIC INFORMATION AND OUTREACH

NIAAA has identified four areas of research where new or expanded activities could enhance outreach to minority populations and make the information imparted more relevant to their needs. They include increased public awareness of the alcohol abuse, dependence (alcoholism), and alcohol-related problems experienced by minority populations; culturally relevant education on FAS; outreach to minority and minority-serving health care professionals; and science education that attends to minority population issues. Goals and proposed action plans for each area follow.

1. Public Awareness of Alcohol Abuse, Dependence (Alcoholism), and Alcohol-Related Problems

An important NIAAA mandate is to bring research-based information to underserved audiences. Although minority populations suffer from alcohol abuse and dependence (alcoholism), they are less likely to receive important information or to seek treatment due to a number of factors. These include social stigmatization, underdocumentation of needs, lack of culture-specific models, and scarcity of resources. During the past 3 years, efforts to translate research results into public information relevant to minority populations have increased. Existing publications have been translated into Spanish, a special project designed to provide public service announcements and pamphlets on FAS to minority communities is under way, and an increasing number of presentations and conferences are held in minority communities.

GOAL 1 – INCREASING THE NUMBER OF HEALTH MESSAGES

Increase at-risk minority group members' access to alcohol-related health messages.

Action Plan: NIAAA proposes to increase production of linguistically and culturally relevant educational materials for at-risk minority groups. In conjunction with national organizations, NIAAA would determine which materials and publications are most needed among specific minority groups, devise a plan to include production of such materials into NIAAA's publications procedures, and ensure that funds for translating all upcoming materials are included in the annual printing budget.

GOAL 2—DRINKING AND DRIVING Reduce drinking and driving among high-risk minority populations.

Action Plan: NIAAA proposes to initiate a partnership with the National Highway Traffic Safety Administration (NHTSA) and Mothers Against Drunk Driving (MADD) for a Drunk Driving Awareness Campaign for Hispanic/Latino men. To ensure that the proposed campaign is effective and culturally sensitive, NIAAA, NHTSA, and MADD would partner

with several national advocacy organizations with expertise in either drinking and driving or minority community issues. In conjunction with these organizations, NIAAA, NHTSA, and MADD would develop a public awareness campaign, beginning with a comprehensive research plan. The information gathered from this research would determine the nature and scope of the subsequent campaign, ensure that it would address the most urgent informational needs of the target audience, and provide the foundation for a meaningful evaluation.

2. FAS Awareness Initiative

FAS is the leading known cause of preventable birth defects in the United States. Because severe effects to the fetus can occur from drinking during the first trimester when many women do not realize that they are pregnant, there is an urgent need for effective awareness campaigns to reach those at highest risk—a group in which minority women are overrepresented. Critical to these knowledge diffusion efforts are approaches that clarify misconceptions about FAS and its consequences.

GOAL 1 – EXPANDING AWARENESS AMONG HIGH-RISK MINORITY POPULATIONS

Increase awareness of FAS among high-risk minority populations.

Action Plan: NIAAA proposes to expand the FAS Public Awareness Campaign, which is designed to reach African American women who are pregnant or of childbearing age, to other minority communities nationwide. Specifically, NIAAA would evaluate the campaign upon completion, identify other communities with similar demographics and needs, and conduct communications research in those areas to determine the most effective means of reaching target audiences (e.g., mass media broadcast and print public service announcements; special events, posters, and other community outreach efforts; extensive community partnerships).

GOAL 2 – REACHING HISPANIC/LATINA WOMEN Increase awareness of FAS among Hispanic/Latina women.

Action Plan: NIAAA proposes to develop, pilot test, and evaluate a FAS pilot public awareness campaign

to reach Hispanic/Latina women of childbearing age that is similar to the expanded program proposed for African American women. Specifically, this initiative would pursue partnerships with organizations that have strong ties to the Hispanic/Latino community, conduct a comprehensive literature search, convene focus groups, and identify appropriate venues for delivering messages about maternal drinking. Like the African American campaign, the Hispanic/Latino pilot project would serve as a testing ground for replication in other areas.

GOAL 3– DISSEMINATING PREVENTION RESEARCH FINDINGS

Ensure that current research findings on prevention of FAS in minority populations are disseminated to minority communities.

Action Plan: Because a large proportion of youth and young adults with FAS become involved with the criminal justice system, NIAAA proposes to disseminate research findings on prevention and treatment of FAS among minorities to criminal justice professionals, as well as physicians and other health care practitioners. Specifically, NIAAA would develop curricula for practitioners that incorporate information from NIAAA-developed manuals on recognizing and intervening with pregnant patients who drink alcohol and on providing care for children with FAS. NIAAA would also collaborate with the Department of Education and the Department of Justice in developing and implementing training on FAS for educators and criminal justice professionals serving minority communities.

3. Outreach to Health Care Professionals

Alcohol-related disorders occur in approximately 26 percent of general medical patients, a prevalence rate that is similar to that for hypertension. Given this rate of occurrence, the Institute of Medicine recommends that questions about alcohol use be included among the routine behavioral/lifestyle questions asked of all those seeking medical care. Because many patients are willing to accept suggestions from health care professionals, alcohol experts further recommend that health care professionals screen for at-risk drinking and follow up on patients' efforts to reduce

or stop drinking and/or seek specialized treatment. To capitalize on this important opportunity to reach minority population members, the health care professionals treating them require accurate and current information as well as training in effective, culturally relevant presentation.

GOAL 1 – TRAINING HEALTH CARE PROFESSIONALS

Make research-based education regarding the prevention and treatment of alcohol-use disorders a priority in the training of health professionals serving minority populations. Increase the number of minority faculty role models in clinical, teaching, and research work on alcohol-use disorders; improve the skills of health and allied professionals who work with ethnic minorities in preventing, detecting, and intervening with alcohol-related problems in their patients and clients; and increase the alcohol-related content of education programs in health and allied health areas.

Action Plan 1: NIAAA proposes to conduct effectiveness trials of methods to integrate research-based alcohol knowledge into mainstream curricula and education programs.

Action Plan 2: NIAAA proposes to develop a strategy to use NIH mechanisms (or develop new mechanisms) to support minority health professions faculty in teaching and conducting research on alcohol-use disorders.

Action Plan 3: NIAAA proposes to develop and test optimal residency and internship training methods for the prevention, detection, and treatment of alcohol-use disorders.

Action Plan 4: NIAAA proposes to review what other health fields have done to incorporate discipline-specific training in residency/internship requirements and stimulate research to test the application of the most promising approaches to enhancing competency in responding to alcohol-use disorders.

Action Plan 5: NIAAA proposes to convene a meeting of university department chairs, medical education specialists, and residency and internship program directors to develop, implement, and evaluate a plan to increase the alcohol-related content of educational programs. NIAAA would test the program

in several universities and in a variety of disciplines (psychology, social work, pharmacy, physical therapy).

GOAL 2 – IMPROVING PHYSICIAN/HEALTH CARE PROVIDER INTERVENTION SKILLS

Improve physicians' and other health care providers' skills in detecting alcohol-related problems among minority populations, conducting office-based interventions (including brief therapy and pharmacotherapy), and referring minority patients for treatment.

Action Plan 1: NIAAA proposes to collaborate with other NIH Institutes in forming a trans-NIH working group on research and treatment of behavioral health problems among minority patients in primary care settings, determining the best systems approaches to integrating culturally sensitive screening for alcohol with screening for other disorders (e.g., hypertension) in primary care settings with minority patients, and conducting both translational research and effectiveness trials of screening approaches, brief office-based interventions, and pharmacotherapy for minority patients.

Action Plan 2: NIAAA will develop curricula and train health care providers in the use of booklets on drinking during pregnancy and FAS and neurobehavioral deficits aimed at pediatric and prenatal care professionals. A booklet to assist women in reducing at-risk drinking will be included in this set.

4. Science Education Initiative

School-based science education is a potentially valuable vehicle for reaching minority group members with accurate information about alcohol abuse, dependence (alcoholism), and alcohol-related problems.

GOAL 1 – DEVELOPMENT OF ALCOHOL-RELATED SCIENCE EDUCATION CURRICULA

Develop and field-test alcohol-related science education curricula and/or adapt and field-test ORMH- and NIAAA-funded curriculum supplements and materials for use in multiethnic or predominantly minority-serving adult education, secondary, and middle schools.

Action Plan 1: NIAAA proposes to fund and/or promote the translation of curriculum supplements into Spanish for incorporation into adult education programs for at-risk populations and into predominantly minority-serving middle and high schools.

Action Plan 2: NIAAA proposes to collaborate with specific schools, such as the Charles R. Drew Medical Magnet High School in Los Angeles, to develop and test a methodology for presenting alcohol-related science education curricula and materials to particular at-risk group(s) in culturally relevant ways and to obtain community support for culturally relevant education in alcohol-related scientific topics.

Action Plan 3: NIAAA proposes to field-test the "Alcohol-Related Birth Defects Science Curriculum Module for Middle Schools and High Schools" that is currently under development in underserved and minority school districts.

Action Plan 4: NIAAA proposes to develop and test a methodology to present the middle-school curriculum supplement, "Understanding Alcohol: Separating Fact from Fiction," in culturally relevant ways. This weeklong curriculum is currently under development and is scheduled for nationwide distribution in 2001.